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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/672,808

09/26/2003

Peter Nilsson

SSJR 3370-P0058A

8907

24126

7590

01/12/2007

ST. ONGE STEWARD JOHNSTON & REENS, LLC  
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EXAMINER

BURCH, MELODY M

ART UNIT

PAPER NUMBER

3683

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

01/12/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/672,808	<b>Applicant(s)</b> NILSSON ET AL.	
	<b>Examiner</b> Melody M. Burch	<b>Art Unit</b> 3683	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 27 October 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-45 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-45 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date. _____   | 6) <input type="checkbox"/> Other: _____                          |

**10/672808**

**DETAILED ACTION**

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/27/06 has been entered.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 3-23, and 25-35 are rejected under 35 U.S.C. 102(e2) as being anticipated by US Patent 6481805 to Ichinose et al.

Re: claims 1, 5-8, 15-18, 23, and 27-29. Ichinose et al. show a vehicle brake system comprising: a brake actuator 1, a brake controller 10 operative to control said brake actuator, at least one position sensor 88 which senses a current position of at

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least one moveable brake component 2 and provides a current position signal indicative of the current position of the at least one moveable brake component to said brake controller as disclosed in col. 3 line 60-col. 4 line 3, and wherein said brake controller is operative to cause actuation of said brake actuator based at least in part upon a comparison of a position indicative command received by said brake controller indicative of a commanded position of the at least one moveable brake component with the current position signal as disclosed in col. 4 lines 22-40.

Re: claims 3, 4, 25, and 26. Ichinose et al. disclose the brake actuator comprising at least in part an electric motor. See col. 3 lines 20-22.

Re: claims 9-14, 19-21, 30-34. Ichinose et al. disclose the primary command comprising at least one of a commanded brake torque, a commanded friction force and a commanded clamping force, particularly a commanded brake torque and employing a slack or clearance position parameter.

Re: claims 22 and 35. Ichinose et al. disclose the sensor input being indicative of at least a current of the motor as disclosed in col. 4 lines 2-3.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2, 24, and 36-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ichinose et al. in view of US Patent 4852699 to Karnopp et al.

Re: claims 2, 24, 36, 37, 40, and 41. Ichinose et al. describe the invention substantially as set forth above in the rejection of claims 1 and 23, but lack the limitation of the brake actuator being self-energizing. For the remaining limitations of claim 36 also see the rejection of claims 1 and 23.

Karnopp et al. teach in col. 1 lines 26-31 the use of a self-energizing actuator of a vehicle brake assembly.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the brake actuator of Ichinose et al. to have been self energizing, as taught by Karnopp et al., in order to provide a means of multiplying the force urging the brake pads and disk into braking engagement as taught by Karnopp et al.

Re: claims 3, 4, 25, 26, 38, and 39. Ichinose et al. disclose the brake actuator comprising at least in part an electric motor. See col. 3 lines 20-22.

Re: claims 9-14, 19-21, 30-34, and 42-45. Ichinose et al. disclose the primary command comprising at least one of a commanded brake torque, a commanded friction force and a commanded clamping force, particularly a commanded brake torque and employing a slack or clearance, position parameter.

Re: claims 22 and 35. Ichinose et al. disclose the sensor input being indicative of at least a current of the motor as disclosed in col. 4 lines 2-3.

### ***Response to Arguments***

6. Applicant's arguments filed 10/27/06 have been fully considered but are not persuasive.

Applicant responded to the final office action arguments on pg. 20 of the Remarks filed 10/27/06. Applicant stated that Examiner interpreted the point when brake pads 2 come in contact with the brake disc 3 as being "somehow equivalent to the claimed position indicative command indicative of a commanded position of the brake component." Applicant further explained that he disagreed with the interpretation noting that the "'contact position' in Ichinose et al. is merely a known position which is used to determine when to slow brake pad advance so as to soften initial contact between the pads 2 and the disc 3." Examiner notes that the position indicative command is the command that results in the brake pads being brought into contact with the brake disc as disclosed in col. 4 lines 48-49. The commanded position is a braking position which corresponds to a position of contact between elements 2 and 3. Applicant appears to disagree with the contact position being the commanded position because the contact position is known. It is unclear to the Examiner why Applicant is suggesting that a known position cannot be a commanded position. If an officer commands a driver to pull over to the shoulder of a road, the shoulder becomes the commanded position. The shoulder is known to the driver and the officer to be the side of the road, but the fact that the shoulder is known does not preclude it from being classified as the commanded position set forth by the officer. Similarly, in this case, the fact that the commanded position or the point of contact between the pad and the disk to effect braking is known does not preclude the contact position from being classified as the commanded position set forth by the brake controller.

Examiner reiterates that Ichinose et al. suggest that a position indicative command or the command controlling the movement of element 2 toward element 3 is compared to the contact or current position so that the motor driving power is reduced before reaching the contact or current position.

Accordingly, the rejections have been maintained.

### ***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melody M. Burch whose telephone number is 571-272-7114. The examiner can normally be reached on Monday-Friday (6:30 AM-3:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James McClellan can be reached on 571-272-6786. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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mmb  
January 5, 2007

*Melody M. Burch*  
**Melody M. Burch**  
**Primary Examiner**  
**Art Unit 3683**  
1/5/07